

**Amendments to the claims**

1-163. (Cancelled)

164. (Previously presented) A quantum device comprising a plurality of conductors, wherein the conductors of the quantum device comprise cut single-wall carbon nanotubes, wherein the cut single-wall carbon nanotubes of the conductors have a substantially similar length.

165. (Cancelled)

166. (Previously presented) An integrated circuit comprising a plurality of molecular wires, wherein the molecular wires of the integrated circuit comprise cut single-wall carbon nanotubes, wherein the cut single-wall carbon nanotubes have a substantially similar length.

167-169. (Cancelled)

170. (Previously presented) An RF shielding device comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the RF shielding device have been purified and cut, and wherein the purified and cut single-wall carbon nanotubes have a substantially similar length.

171. (Previously presented) A microwave absorbing material comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the microwave absorbing material have been purified and cut, and wherein the purified and cut single-wall carbon nanotubes have a substantially similar length.

172. (Previously presented) A hydrogen storage device comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the hydrogen

storage device have been purified and cut, and wherein the purified and cut single-wall carbon nanotubes have a substantially similar length.

173. (Previously presented) A battery comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the battery have been purified and cut, and wherein the purified and cut single-wall carbon nanotubes have a substantially similar length.
174. (Previously presented) A fuel cell comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the fuel cell have been purified and cut, and wherein the purified and cut single-wall carbon nanotubes have a substantially similar.
- 175-195. (Cancelled)
196. (Previously presented) A hydrogen storage device comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the hydrogen storage device have been purified and cut, wherein the purified and cut single-wall carbon nanotubes have a substantially similar length, and wherein the single-wall carbon nanotubes are operable to store hydrogen that is stored in the hydrogen storage device.
197. (Previously presented) A battery comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the battery have been purified and cut, wherein the purified and cut single-wall carbon nanotubes have a substantially similar length, and wherein the single-wall carbon nanotubes are operable as a hydrogen storage device within the battery.
198. (Previously presented) A fuel cell comprising a plurality of single-wall carbon nanotubes, wherein the single-wall carbon nanotubes of the fuel cell have been

purified and cut, wherein the purified and cut single-wall carbon nanotubes have a substantially similar length, and wherein the single-wall carbon nanotubes are operable to store hydrogen in the fuel cell.

199. (Previously presented) The quantum device of Claim 164 wherein (i) the cut single-wall carbon nanotubes of the conductors have a substantially similar diameter, (ii) the cut single-wall carbon nanotubes have a substantially similar length, and (iii) the substantially similar length is between the substantially similar diameter and 1000 times the substantially similar diameter.
200. (Previously presented) The quantum device of Claim 164, wherein the substantially similar length is in the range of about 5 to 1000 nm.
201. (Previously presented) The quantum device of Claim 164, wherein the substantially similar length is in the range of about 5 to 500 nm.
202. (Previously presented) The quantum device of Claim 164, wherein the substantially homogenous length is in the range of about 50 to 500 nm.
203. (Previously presented) The integrated circuit of Claim 166, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
204. (Previously presented) The integrated circuit of Claim 166, wherein the substantially similar length is in the range of about 5 to 500 nm.
205. (Previously presented) The integrated circuit of Claim 166, wherein the substantially similar length is in range of about 50 to 500 nm.
206. (Previously presented) The RF shielding device of Claim 170, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.

207. (Previously presented) The RF shielding device of Claim 170, wherein the substantially similar length is in the range of about 5 to 500 nm.
208. (Previously presented) The RF shielding device of Claim 170, wherein the substantially similar length is in the range of about 50 to 500 nm.
209. (Previously presented) The microwave absorbing material of Claim 171, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
210. (Previously presented) The microwave absorbing material of Claim 171, wherein the substantially similar length is in the range of about 5 to 500 nm.
211. (Previously presented) The microwave absorbing material of Claim 171, wherein the substantially similar length is in the range of about 50 to 500 nm.
212. (Previously presented) The hydrogen storage device of Claim 172, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
213. (Previously presented) The hydrogen storage device of Claim 172, wherein the substantially similar length is in the range of about 5 to 500 nm.
214. (Previously presented) The hydrogen storage device of Claim 172, wherein the substantially similar length is in the range of about 50 to 500 nm.
215. (Previously presented) The battery of Claim 173, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
216. (Previously presented) The battery of Claim 173, wherein the substantially similar length is in the range of about 5 to 500 nm.
217. (Previously presented) The battery of Claim 173, wherein the substantially similar length is in the range of about 50 to 500 nm.

218. (Previously presented) The fuel cell of Claim 174, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
219. (Previously presented) The fuel cell of Claim 174, wherein the substantially similar length is in the range of about 5 to 500 nm.
220. (Previously presented) The fuel cell of Claim 174, wherein the substantially similar length is in the range of about 50 to 500 nm.
221. (Previously presented) The hydrogen storage device of Claim 196, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
222. (Previously presented) The hydrogen storage device of Claim 196, wherein the substantially similar length is in the range of about 5 to 500 nm.
223. (Previously presented) The hydrogen storage device of Claim 196, wherein the substantially similar length is in the range of about 50 to 500 nm.
224. (Previously presented) The battery of Claim 197, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
225. (Previously presented) The battery of Claim 197, wherein the substantially similar length is in the range of about 5 to 500 nm.
226. (Previously presented) The battery of Claim 197, wherein the substantially similar length is in the range of about 50 to 500 nm.
227. (Previously presented) The fuel cell of Claim 198, wherein the substantially similar length is in the range of about 5 nm to 1000 nm.
228. (Previously presented) The fuel cell of Claim 198, wherein the substantially similar length is in the range of about 5 to 500 nm.

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Page : 7

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229. (Previously presented) The fuel cell of Claim 198, wherein the substantially similar length is in the range of about 50 to 500 nm.